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GEOGRAPHIC RESEARCH AREA

Contribution to Part II of Briefing

II. A.

1. The practical difficulties in denial of geographic material are the same as would be experienced with the other areas of subject matter. The close association of the government with a free economy; the responsibility, both ethical and statutory, of the government to share information with the electorate; and our multiple commitments to various international bodies and associations (including the International Geophysical Year)--all act to require that information be openly available if it is not specifically classified. This means that denial is feasible only on a sub-category or ad hoc basis and must occur before rather than after publication. The denial of technical publications as The Photogrammetric Engineer, Journal of the U. S. Coast and Geodetic Survey, and the Military Engineer, is deemed impossible. Because of this situation and the generally advanced level of Soviet development in instrumentation, there is little of significance even in the technical aspects of geography that could be denied to the Soviets. The commercial secrecy which is applied by businesses to their technical developments (such as the assembly of the Warden gravimeter) provide generally-accepted and effective denial in some instances.

2.

a. Aerial photography--No blanket denial of aerial photography is feasible in view of the manifold requirements of scholars, business, planning commissions, etc. It may be possible, however, to deny photography of certain strategic cities and industrial complexes through commercial cooperation and

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a machinery of federal control based on new statutes, <sup>such as would</sup> contemplated by a Task Force on Aerial Photography of Interdepartmental Advisory Committee on Publications in 1955.

b. Information on the La Coste-Romberg submarine gravimeter, as well as the Worden Gravimeter would be desirable and practicable for denial. The former is particularly vital, and since it is a recent development, both the instrument itself or information concerning it is not readily available or voluminous.

c. The design of the measuring engines for the U. S. Naval Observatory lunar photography program (under the ISY), and the techniques of data reduction of the program could be of value to the USSR in that they would strengthen Soviet capabilities to geodetically bridge the continents. Denial might be feasible, if the U. S. Naval Observatory could provide <sup>generalized</sup> final results without jeopardizing the spirit of exchange of data of the ISY program to which the U. S. is committed before world opinion.

3. The USSR profits greatly from its access to all statistical data relating to population, transportation, and aspects of economic and political geography. An example of the degree to which U. S. geographic material is utilized is provided by [REDACTED]

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on the region. Soviet intelligence benefits in geodesy, aerial photography, and mapping are profoundly important. These include:

a. Information on U. S. requirements, methods, successes, and problems relating to the geodetic and cartographic positioning of targets.

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Unclassified U. S. papers have been written and published on geodetic and gravimetric projects and experience in connection with the missiles testing ranges at White Sands, N. M., and at Patrick Air Force Base.

b. Large-scale topographic maps and aeronautical and hydrographic charts from which the Soviets gain geodetic data to position U. S. targets for Soviet missile weapon systems. They also have a high-priority interest in U. S. gravity data on the continental U. S. and on foreign areas where geophysical exploration and prospecting firms have undertaken gravity surveys. Even greater interest exists in oceanic gravity data.

c. Miscellaneous specific projects including the geodetic survey data obtained by the U. S. Army Map Service in its completion of the 30th Meridian Survey in Africa; Hiran geodetic connections across the North Atlantic and Pacific; the geodetic data of the Inter-American Geodetic Survey

25X1X4 [REDACTED]; star occultation and eclipse data used to connect islands and continents; U. S. observations and geodetic data resulting from the U. S. Artificial Satellite program.

B.

1. The importance of Soviet open-source material to geographic intelligence cannot be overstated. Eighty-five out of 175 documents used in preparing a recent geographic intelligence report on the Volga-Ural Region (GIA/RR-G-16) were open Russian sources. The qualitative importance of this material to the content of the report bulked even larger; roughly 90 % of the report was based on the analysis and interpretation of these documents. Other similar studies show a range between 75 % and 85 %.

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In general, the best means for increasing access would seem to be those directed at relaxing Soviet control policies; sufficient effort on our part already is invested in procurement.

2. Detailed city plans of major centers like Moscow are known to exist but are unavailable except to military agencies, planning bodies, and officials of information bureaus in the cities. Access to these, as well as all large-scale maps, depends wholly on the relaxation of Soviet security. Additional major needs are for regional studies of rapidly developing areas, geographic statistics, and dissertations in economic geography.

3. The U. S. lacks the modern Soviet maps and geodetic and gravimetric data to equalize a technical superiority now held by the USSR through its possession of U. S. data and maps and the successful denial of Soviet maps and data to the U. S. Access to Soviet materials might be increased by a careful program of quid pro quo exchanges of data and by a policy of disassociation the U.S. military from major scientific geodetic and gravimetric programs. Specifically:

a. The U. S. lacks modern, postwar Soviet large-scale topographic maps, geodetic catalogs, astronomic catalogs, and gravimetric catalogs which are extremely desirable to strengthen U. S. military capabilities in targeting.

b. Information on Soviet geodetic and mapping activities are needed to obtain supplementary indications of possible sites for missile launching, Soviet programs being expanded into Bloc and other peripheral countries for purposes of extending the Soviet geodetic and mapping system,

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Soviet activities designed to further the achievement of a Soviet world geodetic system, and Soviet achievements and problems in improving long-distance positioning of targets through astronomic and gravimetric and Earth-Satellite techniques and methods.

C. *by* An obvious step-up in denial of open-source material is likely to result in a retaliatory denial of the currently-available Soviet information that is of particular value to us. For example, Soviet geodetic literature is now the sole source of our information on Soviet plans, programs, activities, achievements, and problems in this strategically-significant field; it could be denied to us easily. It would seem, however, that both denial of U. S. data and maximizing of access to Soviet data might be well served by establishing rigid quid pro quo agreements with the USSR in such fields. The exchange of information connected with the International Geophysical Year presents an opportunity for this, <sup>but</sup> ~~which~~ has not yet been adequately thought out as it related to U. S. security interests.

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